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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/716,041	11/17/2000	William N. Partlo	2000-0086-1	7625

7590

07/22/2002

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EXAMINER

NGUYEN, JOSEPH H

ART UNIT

PAPER NUMBER

2815

DATE MAILED: 07/22/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/716,041

Applicant(s)

PARTLO ET AL.

Examiner

Joseph Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 November 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Specification

The abstract of the disclosure is objected to because it should contain one single paragraph. Correction is required. See MPEP § 608.01(b).

Claim Objections

Claim 16 is objected to because of the following informalities: claim 1 should be --claim 15--. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1, 13, 15 are rejected under 35 U.S.C. 102(e) as being anticipated by Algots et al.

Regarding claim 1, Algots et al discloses on figure 2 a grating based line narrowing device for line narrowing a laser producing high energy laser beams, said device comprising a grating 16 defining a grating face, a chamber for housing at least said grating, a helium source (col. 9, lines 40-41) for providing a helium purge for purging said chamber, a beam expanding means 18 for expanding a beam from said laser to produce an expanded beam, a tuning means for directing said expanded beam onto the grating face in order to select from said expanded beam a desired range of wavelength.

Regarding claim 13, Algots et al discloses a feedback grating curvature control mechanism for providing active control of curvature of the grating face.

Regarding claim 15, Algots et al discloses a method of bandwidth control of a narrow band gas discharge laser having based line narrowing unit with grating 16 defining a grating face comprising the step of forcing a flow of gas across said grating face.

Claims 1, 9-13, 16-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Osamu (JP5-167172) et al.

Regarding claim 1, Osamu et al discloses on figure 2 a grating based line narrowing device for line narrowing a laser producing high energy laser beams, said device comprising a grating 30a defining a grating face, a chamber for housing at least said grating, a helium source (col. 4, lines 1-10) for providing a helium purge for purging said chamber, a beam expanding means 25 for expanding a beam from said laser to

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produce an expanded beam, a tuning means 50 for directing said expanded beam onto the grating face in order to select from said expanded beam a desired range of wavelength.

Regarding claim 9, Osamu et al discloses the helium purge gas flow is about 2 liters per minute.

Regarding claim 10, Osamu et al discloses a vacuum pump for creating a vacuum in said chamber.

Regarding claim 11, Osamu et al discloses the vacuum is a pressure of about 1 to 10 milibars.

Regarding claim 12, Osamu et al discloses the vacuum is chosen so that gas molecules inside the chamber have a mean free path of between 5 cm and 30 cm.

Regarding claim 13, Osamu et al discloses a feedback grating curvature control mechanism for providing active control of curvature of the grating face.

Regarding claim 16, Osamu et al discloses the gas flow is less than 20 liters per minute.

Regarding claim 17, Osamu et al discloses the gas flow is between 1 and 8 liters per minute.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2-8, 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Osamu (JP5-167172) et al as applied to claim 1 above, and further in view of Osamu (JP4-314374).

Regarding claim 2, Osamu '172 discloses on figure 2 substantially all the structure set forth in the claimed invention except a heat removal means. However, Osamu '374 discloses on figure 1 a heat removal means 40. In view of such teaching, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Osamu '172 by having a heat removal means for the purpose of reducing fluctuation of beam profile as taught by Osamu '374 (See Abstract).

Regarding claims 3-8 and 14, Osamu '172 and Osamu '374 together disclose the structure set forth in claims 3-8 and 14.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US Patent 6240110 B1 to Ershow disclose a line narrowed F2 laser.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Nguyen whose telephone number is (703) 308-1269. The examiner can normally be reached on Monday-Friday, 7:30 am- 4:30 pm

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eddie Lee can be reached on (703) 308-1690. The fax phone numbers for the organization where this application or proceeding is assigned is (703) 308-7382 for

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regular communications. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

JN

July 16, 2002

A handwritten signature in black ink, appearing to read 'Eddie Lee', is positioned above the printed name and title.

EDDIE LEE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800